

REMARKS

The present response is intended to be a full and complete response to the Office Action mailed January 21, 2010. Claims 11 to 20 are pending in the present application. .

Applicants respectfully request continued examination of Claims 11 to 20 and allowance of all pending claims.

Claim Objections:

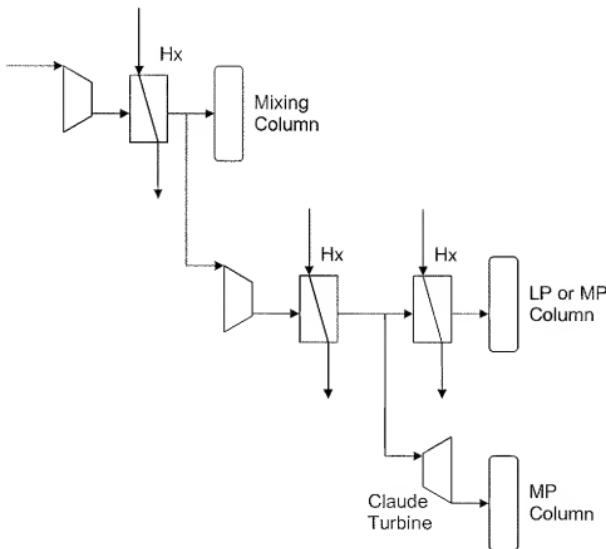
Claims 11 - 20 stand objected to for several informalities. Appropriate amendments have been made.

Claim Rejections Under 35 U.S.C. § 103:

The Examiner rejects Claims 11 to 20 and 18 to 24 under 35 U.S.C. § 103(a) as being unpatentable over Hogg et al '391 in view of Corduan et al' 504. This rejection is respectfully traversed.

The current invention, essentially, requires a stream of air to be:
compressed, cooled in an exchanger, and split into a First and Second stream;
with the First stream being sent to the mixing column;
and the Second stream being:
further boosted, further cooled in a heat exchanger, and further split into a First and Second fraction;
with the First fraction being further cooled and sent to either the LP or MP column,
and the Second fraction being expanded in a Claude turbine and sent to the MP column.

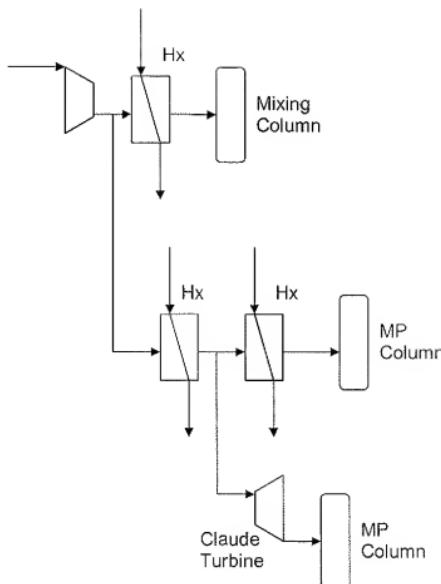
This is simplistically illustrated as follows:



In contrast, Hogg et al. '391, and the Examiner, describe a system, essentially, requires a stream of air to be:

Compressed (12), and split into a First and Second stream (20, 18);
with the First stream being cooled (20) sent to the mixing column (28);
and the Second (18) stream being:
cooled in a heat exchanger (20), and further split into a First (32) and
Second (26) fraction;
with the First fraction being further cooled and sent to MP column,
and the Second fraction being expanded in a Claude turbine and sent to
the MP column.

This is simplistically illustrated as follows:



The Examiner notes that "Hogg does not teach that the second portion is compressed before heat exchange line 20". Applicant respectfully points out that there is more missing from Hogg than just this. In the present invention, the stream that ultimately exits the Claude Turbine is compressed, cooled, further compressed, further cooled, the expanded. In Hogg et al. '391, the analogous stream is compressed and cooled only once before entering the Claude turbine.

It is clear that the present invention describes a system in which the mixing column is at a *lower* pressure than the MP column (hence the additional compression), whereas Hogg et al. '391 describes a system in which the mixing column is at a *higher* pressure than the MP column (hence the liquid oxygen pump 72). The skilled artisan would not find the present invention obvious over Hogg et al. '391.

Corduan et al' 504 fails to remedy this deficiency. Thus the present invention is not rendered obvious by this combination. Hence the rejection is improper and should be vacated.

CONCLUSION

In view of the above, Applicants maintain that Claims 11 to 20 are now in condition for allowance. Early notice to this effect is earnestly solicited. Should the Examiner believe a telephone call would expedite the prosecution of the present application, the Examiner is invited to call the undersigned attorney at the number listed below.

Applicants do not believe that any fee is due at this time. However, in the event that any additional fees are due, the Commissioner is authorized to debit deposit account number 01-1375 for the amount due. Also, the Commissioner is authorized to credit any overpayment with regard to the present response to deposit account number 01-1375.

Respectfully submitted,

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